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10/666,793	09/18/2003	Daniel James Matthews	GB920020065US1	9027
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IBM AUSTIN IPLAW (DG) C/O DELIZIO GILLIAM, PLLC 15201 MASON ROAD, SUITE 1000-312 CYPRESS, TX 77433			VERDI, KIMBLEANN C	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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USPTO@DELIZIOGILLIAM.COM

Office Action Summary	Application No.	Applicant(s)	
	10/666,793	MATTHEWS ET AL.	
	Examiner	Art Unit	
	KimbleAnn Verdi	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 December 2008 and 11 June 2008.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-14,16-26 and 28-36 is/are rejected.
- 7) Claim(s) 3,15 and 27 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

1. Claims 1-36 are pending in the current application.
2. Claim 25, recites "A computer program product comprising instructions encoded in a computer readable medium". In view of Applicant's disclosure, paragraph [0036], and applicant's arguments filed June 11, 2008, page 14, lines 13-24 and page 16, lines 10-27, the medium is limited to a RAM volatile memory element and a non-volatile memory element and does not include transmission medium embodiments (e.g., carrier waves).

Claim Objections

3. Claims 1-12 and 14-36 are objected to because of the following informalities:
 - a. Claim 1, line 14, and claim 25, line 15, the recitation of "each participant", should be "each of the one or more participants";
 - b. Claims 2-12, line 1, the recitation of "A method", should be "The method";
 - c. Claims 14-24, the recitation of "A data processing system" should be "The data processing system";
 - d. Claims 26-36, line 1, the recitation of "A computer program product", should be "the computer program product";
 - e. Claims 18 and 30, line 3, the claims are incomplete and do not end with a period;

f. Applicant is required to review all the pending claims and made appropriate corrections.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/448269 in view of Dadiomov et al. (hereinafter Dadiomov) (U.S. Patent 6,529,932 B1). Although the conflicting claims are not identical, they are not patentably distinct from each other because both systems comprise substantially the same elements for a messaging system which enables

transactional work, done as a result of a recipient processing an asynchronous message, to be involved in the transaction under which message was sent.

6. For example, claim 1 of the current application recited the elements of receiving a request, from a sender, to send an asynchronous message comprising message data, to a queue, wherein the request is received under the scope of a transaction; processing the request to send a message by delivering the message, prior to completion of the transaction, to a recipient, which is registered with the messaging service to process messages from the queue; receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the message; and completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete; whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent are the same and obvious as the elements of claim 1 of the copending application No. 10/448269.

7. The difference is the claims of the copending application No. 10/448269 does not have the limitations registering a definition for the queue, the definition providing details of an operation provided by the recipient wherein the message is delivered to the recipient by calling the operation and including details of the message.

8. However Dadiomov teaches registering a definition for the queue (col. 7, lines 31-34 and col. 10, lines 10-14) , the definition providing details of an operation provided by the recipient (i.e. routing information, col. 7, lines 31-34) wherein the message is delivered to the recipient by calling the operation (i.e. utilizing foreign messaging objects, 10-14, col. 10, lines 40-44) and including details of the message (i.e. message properties, col. 10, lines 36-40).

9. It would have been obvious to a person of ordinary skill in art at the time the invention was made to try to incorporate the teachings of Dadiomov as disclosed above into the system of copending application No. 10/448269 since both of the systems are dealing with a distributed transaction implemented with asynchronous message delivery for routing an asynchronous message through a network to a target queue based on routing information in a message queue directory service (col. 4, lines 51-61 and col. 7, lines 31-34 of Dadiomov).

10. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. The claim language in the following claims is not clearly understood:

a. As per claim 1:

i. Lines 3-4, it is unclear who is receiving a request, from a sender, to send an asynchronous message and it is uncertain if the asynchronous message or message data is being sent to the queue (i.e. Examiner suggests amending the claim as follows: lines 3-4 “the messaging service receives a request from a sender to send an asynchronous message to a queue, wherein the asynchronous message comprises message data to be stored in the queue”; line 5, “wherein the request is received by the messaging service under the scope of a transaction”);

ii. Lines 6-7, it is uncertain where a definition for the queue is registered (i.e. Examiner suggests amendment to the claim as follows: “registering a definition for the queue with the messaging service”);

iii. Line 8, it is not clearly understood what is meant by “processing the request to send the asynchronous message by delivering the asynchronous message”, (i.e. Is processing equivalent to delivering? Examiner suggests to amend the claim as follows: “processing the request to send the asynchronous message by delivering the

asynchronous message to the recipient which is registered with the messaging service to process messages from the queue");

iv. Lines 8-9, it is uncertain who is processing the request "prior to completion of the transaction" (i.e. Examiner suggests amending the claim as follows: "wherein the request is processed by the messaging service prior to completion of the transaction");

v. Line 9, it is unclear who is "receiving one or more requests to register involvement of one or more participants in the transaction" and if the recipient registers with the transaction service (i.e. Examiner suggests to amend the claim as follows: "receiving one or more requests at the transaction service to register involvement of one or more participants in the transaction, and one of the one or more requests to register involvement of the one or more participants in the transaction registers involvement of the recipient as a participant in the transaction and includes details of the queue");

vi. Lines 14-15, it is not clearly understood what the relationship is between the participant and the transactional work done (i.e. Examiner suggests amending the claim as follows: "wherein each of the one or more participants registered with the transaction service represents transactional work done as a result of the recipient processing the asynchronous message")

vii. Lines 16-17, it is uncertain who is completing the transaction, what is the relationship between completing the transaction and instructing each of the one or more participants to complete, how do the participants complete the transaction. (i.e. Examiner suggests to amend the claim as follows: “completing the transaction by the transaction service wherein the completing the transaction comprises instructing each of the one or more participants registered with the transaction service to complete, and instructing the recipient to complete by sending one or more messages to the queue”);

viii. Lines 18-20, it is unclear who sent the message and who is receiving the asynchronous message in the transaction under the scope of which the asynchronous message was sent, is the asynchronous message sent to the messaging service from the sender or to the recipient from the messaging service (i.e. asynchronous message is sent to recipient from messaging service, Examiner suggest amending the claim as follows: “is involved in the transaction under the scope of which the asynchronous message was sent to the recipient from the messaging service”).

- b. As per claims 13 and 25 they have the same deficiencies as claim 1.
- c. Claims 2-12, 14-24, and 26-36 did not cure the deficiencies of claims 1, 13, and 25.
- d. Appropriate Corrections are required.

Claim Rejections - 35 USC § 101

14. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

15. Claims 13-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

16. Claim 13 recites a “A data processing system” and invokes §112, 6th paragraph, by reciting means for the messaging service to receive a request, means for registering a definition for the queue, means for the messaging service to process the request, means for the transaction service to receive a request, and means for the transaction service to complete the request. However, according to the specification, the means for the messaging service to receive a request, means for registering a definition for the queue, means for the messaging service to process the request, means for the transaction service to receive a request, and means for the transaction service to complete the request, as described by Applicant's specification, appear to be data structures which are functional descriptive material. However, function descriptive material is nonstatutory when claimed as descriptive material per se. Applicant describes the functionality of the means for the messaging service to receive a request, means for registering a definition for the queue, means for the messaging service to process the request, means for the transaction service to receive a request, and means for the transaction service to complete the request, but does not disclose any hardware

structure. As such, it is believed that a data processing system of claim 13 is reasonably interpreted as functional descriptive material, *per se* and non statutory.

Claims 14-24 did not cure the deficiencies of claim 13.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 1-2, 4, 13-14, 16, 25-26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dadiomov et al. (hereinafter Dadiomov, previously cited on 1449 dated 1/15/2008) (U.S. Patent 6,529,932 B1) in view of Chessell (previously cited on PTO-892 dated 3/31/2008, U.S. Patent 6,324,589 B1).**

19. **As to claim 1**, Dadiomov teaches the invention substantially as claimed including a data processing method for a data processing system comprising a messaging service (MQDS 120 and Connector Computer 144 components, Fig. 6) and a transaction service (Transaction Coordinator 106, Fig. 3), and a transaction service, the method comprising the steps of:

receiving a request (col. 11, lines 5-8), from a sender (application 180, Fig. 6), to send an asynchronous message (col. 4, lines 51-56), comprising message data (col. 4,

lines 29-31), to a queue (col. 10, lines 64-65), wherein the request is received under the scope of a transaction (col. 11, lines 26-31);

registering a definition for the queue (col. 7, lines 31-34 and col. 10, lines 10-14), the definition providing details of an operation provided by the recipient (i.e. routing information, col. 7, lines 31-34);

processing the request to send the asynchronous message by delivering the asynchronous message (col. 11, lines 28-3), prior to completion of the transaction (col. 11, lines 26-31), to the recipient (MQSys2 MQ Server), which is registered with the messaging service (e.g. queue managers registered with MQDS 120, Fig. 6, col. 10, lines 10-22 and col. 11, lines 2-3) to process messages from the queue (col. 11, lines 28-35), wherein the asynchronous message is delivered to the recipient by calling the operation (i.e. utilizing foreign messaging objects, 10-14, col. 10, lines 40-44) and including details of the asynchronous message (i.e. message properties, col. 10, lines 36-40).

20. Dadiomov does not explicitly disclose receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the asynchronous message; and

completing the transaction wherein the completing the transaction comprises instructing each of the one or more participants to complete;

whereby transactional work done, as a result of the recipient processing the asynchronous message, is involved in the transaction under the scope of which the asynchronous message was sent.

21. However, Chessell teaches receiving one or more requests to register involvement of one or more participants in the transaction (col. 3, lines 42-50), wherein each participant represents transactional work done (col. 3, lines 51-55) as a result of the recipient processing the asynchronous message (e.g. data update logic process 33, Fig. 4, col. 7, lines 59-67, col. 8, lines 1-5, and col. 3, lines 17-42); and

completing the transaction wherein the completing the transaction comprises instructing each of the one or more participants to complete (col. 3, lines 42-50); whereby transactional work done, as a result of the recipient processing the asynchronous message e.g. data update logic process 33, Fig. 4, col. 7, lines 59-67, col. 8, lines 1-5, and col. 3, lines 17-42) is involved in the transaction under the scope of which the asynchronous message was sent (e.g. when the transaction begins at the user interface process, 31, Transaction Context, Fig. 4, col. 6, lines 62-67, col. 7, lines 1-5 and 51-67 and col. 8, lines 1-5).

22. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the transaction coordinator of Dadiomov with the teachings of coordinator object from Chessell because this feature would have provided a mechanism to keep track of which server objects are involved in the transaction, so

that when the transaction is finished, each server object involved in the transaction can be told to commit the changes made locally to the local database associated with that server object, in a single unified effort (col. 3, lines 33-38 of Chessell).

23. **As to claim 2**, Dadiomov as modified by Chessell teaches wherein one of the one or more requests to register involvement one or more participants in the transaction, registers involvement of the recipient as a participant in the transaction (col. 3, lines 33-38 of Chessell).

24. **As to claim 4**, Dadiomov as modified by Chessell teaches wherein the request to register the involvement of the recipient as a participant in the transaction includes details of a second queue (e.g. connector queue, col. 11, lines 5-8 and col. 7, lines 60-61 of Dadiomov) wherein the completing the transaction comprises instructing the recipient to complete by sending one or more messages (col. 3, lines 42-50 of Chessell) to the second queue (col. 11, lines 31-35 of Dadiomov).

25. **As to claims 13-14**, these claims are rejected for the same reasons as claims 1-2 since claims 13-14 recite the same or equivalent invention, see the rejections to claims 1-2 above.

26. **As to claim 16**, this claim is rejected for the same reasons as claim 4 since claim 16 recites the same or equivalent invention, see the rejection to claim 4 above.

27. **As to claims 25-26**, these claims are rejected for the same reasons as claims 1-2 since claims 25-26 recite the same or equivalent invention, see the rejections to claims 1-2 above.

28. **As to claim 28**, this claim is rejected for the same reasons as claim 4 since claim 28 recites the same or equivalent invention, see the rejection to claim 4 above.

29. **Claims 5-6, 10-11, 17-18, 22-23, 29-30, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dadiomov et al. (hereinafter Dadiomov) (U.S. Patent 6,529,932 B1) in view of Chessell (U.S. Patent 6,324,589 B1), as applied to claim 1 above, and further in view of Leymann et al. (hereinafter Leymann, previously cited) (U.S. Patent 6,012,094).**

30. **As to claim 5**, Dadiomov as modified by Chessell teaches the invention substantially as claimed including wherein the transaction is a first transaction (e.g. transaction begins at the user interface process, 31, Transaction Context, Fig. 4, col. 6, lines 62-67, col. 7, lines 1-5 and 51-67 and col. 8, lines 1-5 of Chessell) and the method further comprises:

processing the asynchronous message by the recipient (e.g. data update logic process 33, Fig. 4, col. 7, lines 59-67, col. 8, lines 1-5, and col. 3, lines 17-42 of Chessell).

31. Dadiomov as modified by Chessell does not explicitly disclose wherein processing of the message by the recipient comprises:

informing a second transaction of the first transaction, details of which were included with the asynchronous message; and

calling a second recipient, and as part of calling the second recipient, passing the asynchronous message data to the second recipient for processing under the scope of the second transaction.

32. However, Leymann teaches wherein the processing of the asynchronous message by the recipient comprises:

informing a second transaction of the first transaction (T11 requests processing of stratus S2, Fig. 8, col. 13, line 22-24), details of which were included with the asynchronous message (e.g. put message, col. 10, lines 24-26); and

calling a second recipient (e.g. stratus S4, Fig. 8), and as part of calling the second recipient, passing the asynchronous message data to the second recipient for processing under the scope of the second transaction (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29).

33. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the distributed transaction processing of Dadiomov as modified by Chessell with the teachings of transaction stratification from

Leymann because this feature would have further provided a mechanism to reduce the network traffic required to coordinate a collection of potentially distributed transactions (col. 13, lines 33-35 of Leymann).

34. **As to claim 6**, Dadiomov as modified by Chessell and further modified by Leymann teaches wherein the processing of the asynchronous message by the recipient comprises: starting (e.g. request processing of Leymann) the second transaction (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29 of Leymann).

35. **As to claim 10**, Dadiomov as modified by Chessell and further modified by Leymann teaches wherein the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a subordinate transaction to the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which were included with the asynchronous message (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

36. **As to claim 11**, Dadiomov as modified by Chessell and further modified by Leymann teaches wherein the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a nested transaction within the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which were included with the asynchronous message (e.g. T21 requests 821

processing of stratum S4, Fig. 8, col. 13, lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

37. **As to claims 17-18**, these claims are rejected for the same reasons as claims 5-6 since claims 17-18 recite the same or equivalent invention, see the rejections to claims 5-6 above.

38. **As to claims 22-23**, these claims are rejected for the same reasons as claims 10-11 since claims 22-23 recite the same or equivalent invention, see the rejections to claims 10-11 above.

39. **As to claims 29-30**, these claims are rejected for the same reasons as claims 5-6 since claims 29-30 recite the same or equivalent invention, see the rejections to claims 5-6 above.

40. **As to claims 34-35**, these claims are rejected for the same reasons as claims 10-11 since claims 34-35 recite the same or equivalent invention, see the rejections to claims 10-11 above.

41. **Claims 7-9, 12, 19-21, 24, 31-33, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dadiomov et al. (hereinafter Dadiomov) (U.S. Patent 6,529,932 B1) in view of Chessell (U.S. Patent 6,324,589 B1) and further in view of Leymann et al. (hereinafter Leymann) (U.S. Patent 6,012,094), as applied to claim**

6 above, and further in view of Gigliotti et al. (hereinafter Gigliotti, previously cited) (U.S. Patent 6,138,143).

42. **As to claim 7**, Dadiomov as modified by Chessell and further modified by Leymann does not explicitly disclose wherein the processing of the asynchronous message by the recipient comprises:

 prior to calling the second recipient, registering as a temporary participant in the second transaction; and

 on return from calling the second recipient, unregistering as a temporary participant in the second transaction.

43. However Gigliotti teaches wherein the processing of the asynchronous message by the recipient comprises:

 prior to calling the second recipient, registering as a temporary participant in the second transaction (S1 registers as participant in transaction context 206, Fig. 4, col. 11, lines 61-64); and

 on return from calling the second recipient (e.g. publishes new event to which S3 262 subscribes, col. 11, lines 65-67), unregistering (e.g. callback client) as a temporary participant in the second transaction (col. 12, lines 5-9).

44. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the transaction context of Dadiomov as modified by Chessell and further modified by Leymann with the teachings of a

transaction context from Gigliotti because this feature would have further provided a mechanism to address the shortcomings in known systems for asynchronous transaction processing in a distributed computing environment (col. 3, lines 32-35) utilizing a Transaction context which includes methods to add a participant in a transaction, register commit or rollback votes from participants, and can commit or rollback an entire set of operations and allow related objects access to uncommitted data (col. 6, lines 17-22 of Gigliotti).

45. **As to claim 8**, Dadiomov as modified by Chessell, further modified by Leymann, and further modified by Gigliotti teaches a wherein as part of the unregistering (e.g. callback of Gigliotti) a vote is passed to the second transaction, the vote comprising an indication as to whether the second transaction should commit or rollback (S1 252 votes 268 with transaction context 206 to commit or roll back the transaction, col. 12, lines 5-9 of Gigliotti).

46. **As to claim 9**, Dadiomov as modified by Chessell, further modified by Leymann, and further modified by Gigliotti teaches in response to the unregistering including a vote comprising an indication that the second transaction should rollback, marking the second transaction (e.g. store in Vote Table, Fig. 3A of Gigliotti) as rollback only (col. 9, lines 2-4 of Gigliotti).

47. **As to claim 12**, Dadiomov as modified by Chessell, further modified by Leymann, and further modified by Gigliotti teaches method wherein the second transaction acts as a nested transaction within the transaction, details of which were included with the asynchronous message and the method further comprises:

in response to the unregistering (e.g. callback of Gigliotti) including a vote comprising an indication that the second transaction should rollback (S1 252 votes 268 with transaction context 206 to commit or roll back the transaction, col. 12, lines 5-9 of Gigliotti):

rolling back the second transaction (col. 8, lines 19-20 of Gigliotti); and
restoring the asynchronous message to the queue (the creator sends a message to each participant to rollback the transaction, col. 2, lines 43-46 of Gigliotti).

48. **As to claims 19-21**, these claims are rejected for the same reasons as claims 7-9 since claims 19-21 recite the same or equivalent invention, see the rejections to claims 7-9 above.

49. **As to claim 24**, this claim is rejected for the same reasons as claim 12 since claim 24 recites the same or equivalent invention, see the rejection to claim 12 above.

50. **As to claims 31-33**, these claims are rejected for the same reasons as claims 7-9 since claims 31-33 recite the same or equivalent invention, see the rejections to claims 7-9 above.

51. **As to claim 36**, this claim is rejected for the same reasons as claim 12 since claim 36 recites the same or equivalent invention, see the rejection to claim 12 above.

Allowable Subject Matter

52. Claims 3, 15, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

53. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

56. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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KV

/Li B. Zhen/
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